

TER_POGOSYAN, Ye.M. (Koroleva)

Characteristics of the development of mastication in children during
the period of bite with deciduous teeth. Trudy ISGMI 63:133-144, '60.
(MIRA 15:1)

(MASTICATION) (TEETH)

TERPUGOV, A. A.

Problema snizheniia sebestoimosti kapital'nogo i srednego remonta parovozov.
/The problem of reduction of the cost of locomotive overhauling and maintenance/.
(Sots.transport, 1934, no. 12, p. 23-33, diagrs.).

DLC: HE7.S6

SO: Soviet Transportation and Communications. A Bibliography, Library of Congress
Reference Department, Washington, 1952, Unclassified.

"APPROVED FOR RELEASE: 07/16/2001

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information and. The authors propose to use the following

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APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755420011-5"

ACCESSION NR: AP4009975

S/0109/64/009/001/0061/0066

AUTHOR: ~~Terpugov~~, A. F.

TITLE: Detection of signals in noise with unknown parameters

SOURCE: Radiotekhnika i elektronika, v. 9, no. 1, 1964, 61-66

TOPIC TAGS: signal detection, signal in noise detection, game theory, game theory signal detection, mathematical signal noise separation

ABSTRACT: Two approaches to the detection problem when the probability distribution is totally unknown are considered: (1) Before the game starts, all variants of sending signals S and receiving information X are considered, and the appropriate strategy is chosen; (2) An information (observation) X_k is received; hence, it can be said that one of the transitions $i \rightarrow k, i = 1, 2, \dots$, has materialized and in selecting the solution, only those quantities associated with such transitions should be taken into account (quantities associated with other possible but not

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ACCESSION NR: AP4009975

materialized transitions can be neglected). Both of these approaches are equally "reasonable" but result in different criteria for selecting solutions. By considering five axioms and applying the game-against-nature principles, a minimax criterion for the first approach is obtained (this result is well known). By using the same axioms and breaking the game up into several subgames, a utility minimax criterion is developed for the second approach. This new criterion is a modification of the method of maximum likelihood for finding unknown parameters. Orig. art. has: 27 formulas.

ASSOCIATION: none

SUBMITTED: 11Dec62

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: CO

NO REF SOV: 001

OTHER: 003

Card 2/2

ACCESSION NR: AP4043468

S/0103/64/025/008/1162/1169

AUTHOR: Terpugov, A. F. (Tomsk)

TITLE: Optimality criteria for dual-mode control systems

SOURCE: Avtomatika i telemekhanika, v. 25, no. 8, 1964, 1162-1169

TOPIC TAGS: automatic control, automatic control design, automatic control system, automatic control theory, dual mode control system

ABSTRACT: The theory of a dual-mode control system (see Enclosure 1) developed elsewhere was based, among other things, on these assumptions: (a) the number of operating steps of the system is known; (b) the probability density for M is known. The present article develops the dual-mode-system theory on the basis of incomplete information about (a) and (b) and asymptotical optimality criteria modified in such a way that the system lends itself more readily to analytical investigation. It is assumed that the number of steps is

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ACCESSION NR: AP4043468

small, and the control is determined for 1, 2, 3, ..., s steps in succession. The optimality criterion is based on the assumption that the system operates in groups of steps, k steps in each. Further, the case of a totally unknown number of steps and the known possible range M of values μ is treated. Orig. art. has: 2 figures and 37 formulas.

ASSOCIATION: none

SUBMITTED: 28May63

ENCL: 01

SUB CODE: DP, IE

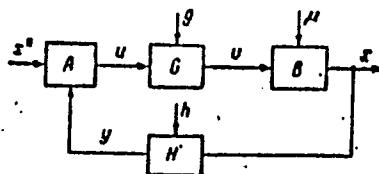
NO REF SOV: 002

OTHER: 002

Card 2/3

ACCESSION NR: AP4043468

ENCLOSURE: 01



A block diagram of the dual-mode control system

A - control unit

B - plant

G and H - channels for transmitting information
having g and h noise

mu - plant parameters

Card 3/3

1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order. The names are: [illegible]

2. The second part of the document is a list of the topics that were discussed at the meeting. The topics are listed in alphabetical order. The topics are: [illegible]

3. The third part of the document is a list of the actions that were taken at the meeting. The actions are listed in alphabetical order. The actions are: [illegible]

4. The fourth part of the document is a list of the conclusions that were reached at the meeting. The conclusions are listed in alphabetical order. The conclusions are: [illegible]

5. The fifth part of the document is a list of the recommendations that were made at the meeting. The recommendations are listed in alphabetical order. The recommendations are: [illegible]

L 4000-66 EWT(d) RB
ACCESSION NR: AR5008078

S/0274/64/000/001/A006/A006
621.391.17

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svednyy tom, Abs. 1A49

AUTHOR: Terpugov, A. F.

TITLE: Optimal limiter for determining the moment of pulse arrival

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 44, 1964, 148-152

TOPIC TAGS: optimal receiver, optimal limiter

TRANSLATION: A sequence of independent normally distributed random values x_1, x_2, \dots, x_n is arriving at a receiver; $E(x_n) = 0$ if only noise arrives, and $E(x_n) = S_{n-\tau}$ if the signal arrives at the moment τ ; the dispersion of x_n is assumed to be known. And if the distribution of signal τ is known, if the risk function $L(\tau, T)$ is known, where T is the moment of decision about the presence of the signal. A system that would realize an optimal solution in the Bayes sense (with a known T distribution function $P(T)$) would be very complicated according to the

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author. Hence, a well-known series criterion "1 out of n" is proposed, i.e., the signal is considered present when x_i exceeds threshold C for the first time. The quantity C is optimized under these assumptions: (1) $P(T)$ is uniform within $(0, T_m)$; $S_{1-\tau} = \text{const}$; $L(\tau, T) = (\tau - T)^2$. Russian abstracter's note: Apparently, the author is not familiar with the solution of the above problem suggested by A. K. Shirayev (RZh Matematika, 1963, 12V319). A system which realizes a degenerate sequential analysis of the arriving data is a practically optimal system. Bibl. 1.

SUB CODE: EC

ENCL: 00

mlr
Card 2/2

L 47389-66 EWT(1)/I/FSS-2 WR

ACC NR: AR6025791

SOURCE CODE: UR/0058/66/000/004/H044/H044

AUTHOR: Vodolazskiy, V. I.; Terpugov, A. F.

TITLE: Optimal antennas for monopulse radar 24

SOURCE: Ref. zh. Fizika, Abs. 4Zh304

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 171-206

TOPIC TAGS: antenna directivity, monopulse radar, diversity radar, mean square error, error minimization

ABSTRACT: The following problem is considered: What should the shape of the ^{25B}directivity pattern of an antenna system for a monopulse radar be in order that the rms error in the determination of the angular coordinates of the target, and also its range and velocity, be minimal in some sense. Monopulse radars are investigated in which the determination of the target angle is carried out by comparing the phases of reflected signals at the output of two spatially-separated antenna systems with identical directivity patterns. Only the plane case is considered, when the angular position of the target is characterized by only one angle. It is found that rational shaping of the directivity patterns of the radar antennas can reduce by a factor of several times the error in the determination of the target, its range, and velocity. G. Malushkov. [Translation of abstract]

SUB CODE: 09

Card 1/1 hs

ACC NR: AR6026535

SOURCE CODE: UR/0372/66/000/004/G045/G045

AUTHOR: Kurochkina, T. K.; Terpugov, A. F.

TITLE: Experimental verification of target-search algorithms with the aid of human subjects

SOURCE: Ref. zh. Kibernetika, Abs. 4G314

REF SOURCE: Tr. Sibirek. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 207-219

TOPIC TAGS: noise generator, *algorithm* analog computer, simulation test, target seeker / GShN-1 noise generator, MN-7 analog computer

ABSTRACT: The article presents the findings of an experimental study of target-search algorithms with the aid of human subjects, on using a GShN-1 noise generator, a converter and an MN-7 analog computer. Normal HF noise was converted to LF and transmitted to an integrator. When the "start" button is pushed on the integrator the latest instantaneous value of noise is memorized. The quantity μ (target simulator) is then added to or subtracted from this value of noise, in an adder. The subject is asked to identify with the aid of a voltmeter which one of a pair of channels contains the target; the channels are represented by the adder outputs. 8 illustrations, 6 tables, bibliography of 7 titles. Yu. M. [Translation of abstract]

SUB CODE: 09, 06, 12, ~~12~~

Cord 1/1

UDC: 62-506.2:15

ACC NR: AR6026495

SOURCE CODE: UR/0274/66/000/004/B023/B023

AUTHOR: Terpugov, A. F.

TITLE: Optimal radar-pulse shapes

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 4B159

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 163-170

TOPIC TAGS: radar, radar pulse

ABSTRACT: Two optimality criteria -- informational and statistical -- were used in selecting the optimal radar-pulse shape. In the first case, the pulse shape that ensured maximum information about target coordinates in the arriving signal-noise mixture was regarded as optimal. In the second case, the pulse shape which ensured minimum mean-square error of target-coordinate measurement was regarded as optimal. For the case of weak signals in an additive Gaussian noise, a generalized formula for the information content in the radar signal has been derived by the methods of general information theory and the method of Lagrangian indefinite factors. From this formula, other formulas are derived which determine maximum information about target range and velocity; target presence and range; target presence and its velocity; target presence, its range and velocity. The statistical optimality criterion is used for deriving a general formula which describes the radar-pulse shape ensuring maximum accuracy in target-range determination. Also, a formula for the pulse shape which ensures minimal error in target-velocity determination is

Cord 1/2

UDC: 621.396.961:621.391.14

ACC NR: AR6026495

developed. For the case of normal white noise, all radar pulse shapes are equivalent. If the densities of probabilities of velocity and range are known, an optimal pulse shape does exist. In this case, all optimal shapes yielding maximum information or minimum error in the target-coordinate measurement are different for different parameters. Bibliography of 7 titles. S. G. [Translation of abstract]

SUB CODE: 17

Card 2/2

ACC NR: AR6026491

SOURCE CODE: UR/0274/66/000/004/A040/A040

AUTHOR: Vodolazskiy, V. I.; Terpugov, A. F.

TITLE: Optimal antennas in single-pulse radars

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 4A266

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 171-206

TOPIC TAGS: radar, single pulse radar, radar antenna, antenna directional pattern

ABSTRACT: This problem is considered: Which shape the antenna directional pattern in a single-pulse radar must have in order that the mean-square error, in determining the target angle and target range and speed, be minimal. The single-pulse radars are investigated in which the target angle is determined from a comparison of echo-signal phases at the outputs of two space-separated antennas having identical directional patterns. Only the planar case, in which the angular target position is defined by one angle, is considered. A rational shaping of the directional pattern can reduce the error in determining the target angle, range, and speed by several times. Bibliography of 9 titles. G. M. [Translation of abstract]

SUB CODE: 17

Card 1/1

UDC: 621.396.677.861:621.396.96

AT6022238

SOURCE CODE: UR/0000/66/000/000/0041/0048

AUTHOR: Rogova, G. V.; Terpugov, A. F.

ORG: none

TITLE: Optimum coherent radar pulse shapes

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966.
Sektsiya radiotekhniki. Doklady. Moscow, 1966, 41-48

TOPIC TAGS: radar pulse, radar signal analysis, signal noise separation

ABSTRACT: The optimum radar pulse forms are sought for which the deviations of target distance and velocity estimates are minimum. The maximum likelihood method is used to estimate the best signals corrupted by noise which is additive, stationary, Gaussian, and which has an average value of zero. The optimum pulse shapes calculated on the M-20 digital computer are presented. They have a considerable amplitude modulation precluding their use in radars whose amplifiers have a limited dynamic range. For this reason the optimum phase modulated pulses are found for which the target distance and velocity estimate deviations are minimum. The errors in these estimate deviations are only a fraction of a percent greater than above. Orig. art. has: 21 formulas and 4 figures.

SUB CODE: 17/1 SUBM DATE: 16Mar66
Card 1/1

ACC NR: AP6022240 SOURCE CODE: UR/0000/66/000/000/0053/0059

AUTHOR: Kolmakova, S. A.; Terpugov, A. F.

ORG: none

TITLE: The optimum radar pulse shapes in the Bayes case

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966.
Sektssiya radiotekhniki. Doklady. Moscow, 1966, 53-59

TOPIC TAGS: radar pulse, radar signal analysis, signal noise ratio

ABSTRACT: The form of radar pulse is sought for which the deviation of the Bayes estimate of reflected radar pulse delay time is minimum. The general problem is analyzed in parts, i.e., for small and large S/N ratios. It is assumed that the noise is additive, stationary, has an average value of zero, and its spectrum is flat in the system bandpass. The solutions are worked out using the M-20 digital computer and presented in the form of normalized graphs. The problem in which the radar pulses have pure modulation are also treated analogously. Orig. art. has: 18 formulas and 2 figures.

SUB CODE: 17/ SUBM DAT: 16Mar66/ OTH REF: 001

Card 1/1

ACC NR: AR6028104

SOURCE CODE: UR/0372/66/000/005/V024/V024

AUTHOR: Terpugov, A. F.

TITLE: Optimal shapes of radar pulses

SOURCE: Ref. zh. Kibernetika, Abs. 5V142

REF SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 47, 1965, 163-170

TOPIC TAGS: radar detection, radar echo, radar pulse, mathematic analysis

ABSTRACT: Two criteria were used for selecting optimal shapes of radar pulses: information and statistical. In the first case, the optimal shape was considered that shape or radar pulses whose received signal plus noise contains the maximum information on the target coordinates. In the second case, the pulse shape that contains the minimum RMS error for measuring the target coordinates was considered optimal. The amount of information contained in weak signals mixed with an additive Gaussian noise was found by use of general information theory and undetermined multiplier methods. Expressions for the following quantities were found from the above basic expression: maximum of information regarding the target distance; the target speed; the target distance and its existence; the target speed and its existence; the target existence, its speed and distance. All of the expressions have analogous forms and only the kernels of the corresponding integral equations differ. A general expression

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UDC: 519.2:621.3

ACC NR: AR6028104

that determines the target distance is found by using the statistical optimal criteria. A mathematical expression for the radar pulse shape that ensures a minimum error in determining the target speed is also found. It is noted that in the presence of white noise all of the radar pulse shapes are equal-valued. An optimal pulse shape exists if only probability densities for the speed and distance are known. All of the optimal pulse shapes that yield maximum information or minimum error for measuring the target coordinates differ for different parameters. [Translation of abstract]
S. Gerasimov

SUB CODE: 17

Card 2/2

USSR/Cultivated Plants - Grains

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53574

Author : Terpugov, A.V.

Inst : Kurgansk Agricultural Institute

Title : An Experiment in the Application of Fertilizers under
Corn in the Kurganskaya Oblast'

Orig Pub : Sb. nauchn. rabot Kurgansk. s.-kh. in-t, 1956, vyp. 3,
92-104

Abstract : This articles describes the results of the studies of
some methods of applying organic and mineral fertilizers
under corn sown on land plowed in autumn and on fallow
on the leached out chernozems of the central zone of the
region. Rotten manure and manure-phosphate compost (10
t/ha) increases the yields of the cobs and of the green
bulk. Side-dressing the sowing on the land plowed in

Card 1/2

USSR/Cultivated Plants - Grains

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53574

fall with a complete mineral fertilizer increases the yield of green stuff and of the cobs. The effectiveness of the fertilizer increases with the deepening of the tilled layer. Sowings on fallow insure high yields of grain (25-27 centners/ha), of green stuff and of seeds for use on the farm. -- N.G. Buyakovich

Card 2/2

- 24 -

TERPUGOV, G.A., inzhener.

Relay distributor for dispatcher control apparatus. Avtom., telem.
i svyaz' no.2:19-22 F '57. (MIRA 10:4)
(Railroads--Train dispatching)

TERPUGOV, G.A., inzhener.

Organization of signal construction on American railroads.
Avtom., telem. i svyaz' no. 5:46-47 My '57. (MLRA 10:7)
(United States--Railroads--Signaling)

TERPUGOV, G.A., inzh.

Signaling, central control and block systems on American railroads.
Avtom., telem. i svyaz' no.10:46-48 O '57. (MIRA 10:11)
(United States--Railroads--Signaling)

SOBOLEV, V.Ya., kandidat tekhnicheskikh nauk: TERPUGOV, G.A., inzhener.

Polarity-frequency centralized dispatcher system. Zhel.dor.transp.
39 no.1:52-56 Ja '57. (MLBA 10:2)
(Railroads--Train dispatching)

TERPUGOV, G.A., inzh.

Centralized dispatching on Danish state railroads. Avtom., telem. i
sviaz' 2 no.9:46 S '58. (MIRA 11:10)
(Denmark--Railroads--Train dispatching)

KUT'IN, I.M.; TERPUGOV, G.A.; PETUSHKOVA, I.K., red.; MEDVEDEVA, M.A.,
tekhn. red.

[New speedy centralized train traffic-control system] Novaia vysoko-
deistvuiushchaia sistema dispetcherskogo kontrolya dvizheniya poezdov.
Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniya,
1961. 24 p. (MIRA 14:6)
(Railroads—Signaling—Centralized traffic control)

KARVATSKIY, S.B.; KRASHNIKOV, M.P.; SOBOLEV, V.Ya.[deceased];
TERPUGOV, G.A.; FILIPPOVA, L.S., red.; USENKO, L.A., tekhn.
red.

[New systems of coded interlocking] Novye sistemy kodovoi
tsentralizatsii. Moskva, Vses.izdatel'sko-poligr. ob"edinenie
M-va putei soobshcheniia, 1961. 30 p. (MIRA 15:1)
(Railroads--Signaling--Intelocking systems)

YEGORENKOV, N.G., inzh.; KARVATSKIY, S.B., inzh.; PENKIN, N.F., kand.tekhn.
nauk; SOBOLEV, V.Ya., kand.tekhn.nauk; TERPUGOV, G.A., inzh.;
PETUSHKOVA, I.K., inzh.,red.; BOBKOVA, Ye.N., tekhn.red.

[ChDTs-TsNII system frequency-operated centralized traffic control]
Chastotnaia dispetcherskaia tsentralizatsiia sistemy ChDTs-TsNII.
Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobsh-
cheniia, 1961. 174 p. (Moscow. Moskovskii institut inzhenerov
zheleznodorozhnogo transporta. Trudy, no.210.) (MIRA 14:7)
(Railroads--Signaling--Centralized traffic control)

KUT'IN, I.M., kand.tekhn.nauk; TERPUGOV, G.A., inzh.

High-speed BDK-TgNII-57 centralized traffic control apparatus.
Avtom., tolom. i sviaz' 5 no.3:9-12 Mr '61. (MIRA 14:9)
(Railroads--Electronic equipment)

KARVATSKIY, S.B., inzh.; TERPUGOV, G.A., inzh.

RPK-2 code-relay interlocking system. Avtom., telem. i svyaz'
5 no.6:5-9 Je '61. (MIRA 14:9)
(Railroads--Signaling--Interlocking systems)

TERPUGOV, German Alekseyevich; PANIN, P.S., retsenzents; MARENKOVA,
G.I., inzh., red.; GROMOV, Yu.V., tekhn. red.

[Dispatcher control of train traffic] Dispetcherskii kontrol'
dvizheniia poezdov. Moskva, Vses. izdatel'sko-poligr. ob"edi-
nenie M-va putei soobshcheniia, 1962. 115 p. (MIRA 15:5)
(Railroads--Signaling--Centralized traffic control)
(Railroads--Train dispatching)

YEGORENKOV, Nikolay Gerasimovich, inzh.; KARVATSKIY, S.B., inzh.;
TERPUGOV, G.A., inzh.; MARENKOVA, G.I., inzh., red.;
VOROTNIKOVA, L.F., tekhn. red.

[Frequency-type ChDTs-TsNII centralized traffic control
system] Chastotnaia dispetcherskaia tsentralizatsiia
ChDTs-TsNII. Moskva, Transzheldorizdat, 1963. 178 p.
(MIRA 16:6)
(Railroads--Signaling--Centralized traffic control)

KARVATSKIY, S.B.; KRASNIKOV, M.P.; TERFUGOV, G.A.; SUKHOPRUDSKIY,
N.D., kand. tekhn.nauk, retsenzent; PETUSHKOVA, I.K.,
inzh., red.; DROZDOVA, N.D., tekhn. red.

[SKTs-62 code interlocking system] Kodovaya tsentralizatsiia
sistemy SKTs-62. Moskva, Transzheldorizdat, 1963. 30 p.
(MIRA 16:10)
(Railroads--Signaling--Interlocking systems)

TERPUGOV, K. N.

"Improved Methods of Operation During Measurement of 30" Angles With a Transit Compass and Determination of Distance With a Stadia." Thesis for degree of Cand Technical Sci. Sub 8 Jun 50, Moscow Inst of Engineers for the Organization of Land Exploitation.

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec. 1950.

TERPUGOV, K.M., kand.tekhn.nauk

Formulas for computing coordinates of points determined by
linear intersection. Geod. i kart. no.7:8-12 J1 '60.

(MIRA 13:9)

(Surveying--Tables, etc.) (Coordinates)

TERPUQOV, K.N.

Adjusting the line between two unfixed points in linear triangulation. Geod. i kart. no. 4:22-27 Ap '61. (MIRA 14:5)
(Triangulation)

TERPUGOV, K.N., dotsent, kand.tekhn.nauk; CORDEYEV, Yu.A., dotsent, kand.
tekhn.nauk

Adjustment of linear triangulation systems by the condition method
using conditional type equations and mechanical rules. Izv. vys.
ucheb. zav.; geod. i aerof. no.4:49-65 '61. (MIRA 15:1)

1. Leningradskoye vysshaye inzhenernoye morskoye uchilishche imeni
admirala Makarova.

(Triangulation)

TERPUGOV, K.N.

Adjustment of linear intersections by the method of conditional
equations. Geod.i kart. no.2:19-22 F '62. (MIRA 15:3)
(Surveying)

TERPUGOV

USSR/ Electronics - Measuring instruments

Card 1/1 Pub. 133 - 2/18

Authors : Terpugov, N. V., Cand. of Techn. Sc.

Title : Band phase meter for measuring frequencies of from 40 - 20,000 c/s

Periodical : Vest. svyazi 2, 3 - 5, Feb 1955

Abstract : A device for measuring the phase-frequency characteristics of quadri-
phase signals, modulators and other elements of communications appar-
atus is described. The instrument is capable of measuring phase
differences ranging from 0 - 180° at a frequency range of from 40 to
20,000 c/s with a reading accuracy of about 0.5°. The principle wiring
diagram of the instrument, its qualitative index, calibration and mode
of operation are described. Diagrams; illustration.

Institution:

Submitted:

TERPUGOV, N. V.

Terpugov, N. V. "On the possibilities of using the rivers of the Ukraine for transportation purposes", *Izvestiya Into gidrologii i gidrotekhniki* (Akad. nauk Ukr. SSR), Vol. IV, 1948, p. 75-84, (IN Ukrainian, resume in Russian).

SO: U-3042, 11 March 53, (Letopis'nykh Statey, No. 10, 1949).

191758

TERPUGOV, PROF N. V.

USSR/Hydrology - Channels

Sep 51

"Some Problems in Design of Hydrotechnical Installations," Prof N. V. Terpugov

"Gidrotekh i Meliorat" Vol III, No 9, pp 19-26

Derives formulas for computation of supporting walls on water boundaries. They are applied to the scheme of farms of Koritskiy and to clogging of channels of shallow mudguards. Discusses exptl results of such constructions.

191758

TERPUGOV, N.V. [Terpuhov, M.V.], prof., doktor tekhn. nauk.

Showing possibilities for water transportation on Ukrainian rivers.
Trudy GGI no.37:75-84 '53. (MIRA 11:6)

(Ukraine--Inland water transportation)

AUTHOR
TITLE

TERPUGOV, N.V.

109-6-13/17

On the Calculation of the Resolving Power of Automatic Frequency Analyzers.

(K raschetu razreshayushchey sposobnosti avtomaticheskikh analiza-
torov chastoty - Russian)

PERIODICAL

Radiotekhnika i Elektronika, 1957, Vol 2, Nr 6, pp 796-806 (U.S.S.R.)

ABSTRACT

An investigation is made of the method of calculation of dynamic frequency characteristics of filter systems. Since the basic requirement of an analyzer is the obtaining of the narrowest possible spectral lines as this essentially determines the resolving power of the device, two problems are investigated here: 1) Determination of the form of spectral lines developed by filters of various types, and the selection of a filter system which guarantees obtaining of narrow spectral lines. 2) Selection of an optimum transmission band of the filter system. The method of investigating dynamic frequency characteristics is given and it is shown that for a determination of those one has to investigate the case in which a frequency-modulated EMF acts on the filter. In order to simplify the problem, it is here proposed to use a well-known function which corresponds to the frequency-modulated oscillations and whose frequency is modified according to the theorem of the sine. In this manner the general equations for the calculation of the dynamic frequency characteristic are derived. In order to examine them with respect to their usability, a number of definitions and coefficients are given. Thereafter the results of the ex-

Card 1/2

On the Calculation of the Resolving Power of
Automatic Frequency Analyzers.

109-6-13/17

perimental investigation of filter systems in the case of various working methods are given. It is shown that it is not of any use to try to obtain quasi-steady working methods. It is shown that the best filter system is a three-cascade resonance amplifier with $S=0,5$. S is a dimensionless quantity which determines the transmission band and which characterizes the degree of influence exercised by the non-steady process on the form of the dynamic frequency characteristic. It is shown that the resolving power of the analyzer does not only depend on its qualitative indices but also on the character of the investigated spectrum. (10 illustrations, 2 tables).

ASSOCIATION Not given.
PRESENTED BY
SUBMITTED 9.6.1956
AVAILABLE Library of Congress
Card 2/2

S/194/62/000/006/105/232
D288/D308

9,4310

AUTHOR: Terpugov, N.V.

TITLE: Methods of obtaining static characteristics of transistors handling large signals

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1962, abstract 6-4-65 k (V sb. Poluprovnik. pribory i ikh primeneniye. no. 7, M., Sov. radio, 1961, 127-136)

TEXT: The author investigates methods of measuring static characteristics of high power transistors based on the condition that the power dissipated on the collector is maintained constant ($P_c = \text{const}$). The value of d.c. collector current required for reaching a given power is adjusted by controlling the value of input d.c. current. Any points of the static characteristic at $P_c = \text{const}$ are reached by applying a certain pulsed voltage of short duration and low repetition rate to the transistor input in series with the signal from d.c. current source. D.c. currents and voltages are
Card 1/2

Methods of obtaining static ...

S/194/62/000/006/105/232
D288/D308

measured by instruments, pulsed currents by means of a calibrated oscilloscope. The family of static characteristics is best taken for admissible power dissipated in the collector at a given ambient temperature. The above method leads to considerable errors in the case of low collector voltages and is replaced by a different method. The latter is based on the fact that the temperature rise of the collector junction above ambient temperature is proportional to the collector dissipation. To maintain the required condition $P_c = \text{const.}$ the transistors under investigation are placed into a thermostat with determined temperature. D.c. sources and instruments are then no longer required, nor is there a need for heat sinks attached to the transistors. It is easy to determine the permissible collector dissipation for a given type of heat sink. [Abstracter's note: Complete translation.]

Card 2/2

ACCESSION NR: AT4017559

S/3074/62/000/047/0117/0135

AUTHOR: Terpugov, N. V. (Candidate of technical sciences, Docent)

TITLE: Concerning the noise of a two-port network

SOURCE: Leningrad, Elektrotekhnicheskiy institut. Izv., no. 47, 1962, 117-135

TOPIC TAGS: two port network, two port network noise, network matching, vacuum tube network, transistor network, Nyquist formula, current generator, voltage generator, admittance matrix, impedance matrix, signal to noise ratio

ABSTRACT: In view of the limitations that noise imposes on many radio devices, an analysis was made of the matching characteristics of generalized radio loads, which may include vacuum tubes or transistors and which cannot be readily treated by the Nyquist formula. These are represented in the form of noisy two-port networks, for

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ACCESSION NR: AT4017559

which equivalent noise parameters are derived. Several sets of parameters are considered (input and output current generators and an admittance matrix, input and output voltage generators and an impedance matrix, input voltage and current generators and a non-noisy two-port network). Experimental methods for determining the numerical values of the noise generators are then discussed. Once the noise properties of the two-port are known, it becomes possible to determine the optimum values of the elements of the matching networks necessary to obtain the best signal to noise ratio, the value of this ratio, and the output-noise voltage referred to the signal voltage. The method holds for all frequency ranges. Orig. art. has: 8 figures, 46 formulas, and 1 table.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut (Leningrad Electrotechnical Institute)

SUBMITTED: 00Jun61

DATE ACQ: 20Mar64

ENCL: 00

SUB CODE: GE

NR REF SOV: 000

OTHER: 003

Card 2/2

42074

S/108/62/017/011/002/007
D413/D308

6.7000
6.9411

AUTHOR: Terpugov, N.V., Member of the Society (see Association)

TITLE: A method for determining the noise parameters of four-terminal networks

PERIODICAL: Radiotekhnika, v. 17, no. 11, 1962, 14-22

TEXT: For the calculation of noise generated in radio equipment, it is convenient to represent active elements such as valves or transistors as four-terminal networks with noise generators connected to them, whose parameters are independent of the circuit in which the element is connected. The author describes the build-up of the equivalent circuit with various forms of equivalent noise parameters, and the methods already proposed for measuring these parameters (Rothe, Dalke, PIRE, v. 44, no. 6, 1956; G. Winkler, Nachrichtentechnik, no. 12, 1958): he criticizes these methods for being clumsy and essentially incapable of giving accurate results, and recommends a new method, which requires no graphical construction. First the noise factor of the element is measured for two
Card 1/2

A method for determining ...

S/108/62/017/011/002/007
D413/D308

different large values of signal source impedance, and also for two different large values of signal source admittance: this gives the equivalent resistance R_n and the equivalent conductance g_n of the noise generators, from which one can derive the source impedance $R_{G(opt)}$ at which the noise factor is a minimum. Taking this value of source impedance in two conditions, a) purely resistive and b) purely reactive, the signal emf is measured that doubles the output voltage from the no-signal condition: these measurements then give the two components of the correlation admittance Y_{cor} . Measurements on a П6Д (P6D) transistor at 10 kc/s are quoted as an example. There are 6 figures and 1 table.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications im. A.S. Popov) [Abstracter's note: Name of Association taken from first page of journal]

SUBMITTED: June 11, 1960 (initially)
Card 2/2 June 21, 1962 (after revision)

TERPUGOV, Ye. A.

Med., Clinical Sector., Leningrad Sci. Res. Neurosurgical Inst. im. A. L. Pospelov,
Min. Public Health RSFSR, cl. 18-04/1-.

"Cranial-Vertebral Tumors," Vop. Neurokhirurgii, 12, No. 2, 1977;

"Clinical Aspects of Rare Forms of Neurofibromatosis," ibid., No. 3, 1977.

TERPUGOV E. A.

1079. TERPUGOV E. A. Clinical aspects of rare forms of neurofibromatosis
Problems of Neuro-surgery, Moscow 1949, 13/3 (53-57) Illus. 1

Detailed descriptions of neurofibromatosis in two men. 300 grams of neurofibromas were removed from the median and radial nerves in the upper right arm of the first, aged 21. They had caused only slight paraesthesia when pressed and a shortening of chronaxie in the distribution of the radial nerve. In 1938 the second patient began to notice failing vision and increasing proptosis of the right eye; 4 years later the eye was blind and he was regurgitating fluids nasally. In 1945 he began to stagger and the next year became increasingly deaf and hoarse. He was still without headache, but bedridden when admitted in 1947. Examination disclosed: numerous subcutaneous nodules, some painful; rt. eye, blind, markedly proptosed, chemosed, immobile; left eye, VA 0.1, abduction limited, pupillary reaction sluggish; corneal reflexes absent; rt. 7th, weak; auditory and vestibular functions absent bilaterally; right palatal and left laryngeal paralysis; deep reflexes slightly more active on the left with suggestively positive Babinski sign bilaterally; bilateral cerebellar dysfunction, but no weakness or sensory impairment of the body. Skull X-rays showed enlargement of the right orbit, evidence of increased intracranial pressure, erosion of both internal auditory meati, of the base of the skull on the right, and about the foramen magnum. The right eye and a 'meningioma' slightly larger than the globe were removed from the right orbit. In March 1948, a 3 X 2.5 cm. neurofibroma was removed from the left 8th nerve and a

Clinical Sec., Leningrad Sci. Res. Neurosurg. Inst. in A. L. Polevov,
Min. Health, RSFSR

TERPUGOV E. A.

238148

USSR/Medicine - Surgical Instruments Nov/Dec 52

"Protective Clamp and Protective Plate," E. A.
Terpugov Neurosurg Dept, Leningrad Sci Res Psy-
choneurol Inst imeni V. M. Bekhterev Min of Pub
Health, RSFSR.

"Vop Neurokh" Vol 16, No 6, pp 52-53

Author describes his modification of the Lever
clamp used in brain surgery. Drawings of the
old and of the modified clamp are included.

238148

TERPUGOV, Ye. A.

RAZDOL'SKIY, I. Ya.; TERPUGOV, Ye. A.; SAL'MAN, A. Ye.

Classification and clinical aspects of arachnoendotheliomas of the posterior cranial fossa. Zhur. nevr. i psikh. 54 no. 6: 567-571 Je '54. (MLRA 7:7)

1. Nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni V. M. Bekhtereva.

(BRAIN, neoplasms,

*classif. & clin. aspects of tumors of posterior cranial fossa)

TERPUGOV, Ya. A.

Microporous rubber drainage and protective dressing in neurosurgery.
Vop. neirokhir. 19 no.1:57-58 Ja-F '55. (MLRA 8:2)

1. Iz neyrokhirurgicheskogo otdeleniya Nauchno-issledovatel'skogo
psikhonevrologicheskogo instituta V.M.Bekhtereva.
(NEUROSURGERY,

microporous resin drains & protective dressings in)

TERPUGOV, Ye. A.

RAZDOL'SKIY, I.Ya.; SAL'MAN, A.Ya.; TERPUGOV, Ye.A.

Psychic disorders in cysticercosis of the brain [with summary in French] Zhur.nevr.i psikh. 57 no.4:496-503 '57. (MLRA 10:7)

1. Gosudarstvennyy nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni V.M.Bekhtereva, Leningrad.

(CYSTICERCOSIS, complications,

brain, with ment. disord. (Rus))

(MENTAL DISORDERS, etiology and pathogenesis,

cysticercosis of brain (Rus))

(BRAIN, diseases,

cysticercosis with ment. disord. (Rus))

TERPUGOV, Ye.A.

Classification and clinical aspects of neurinoma of the auditory nerve. Vop. psikh i nevr. no.3:107-120 '58. (MIRA 12:3)

1. Iz Psikhonevrologicheskogo instituta im. V.M. Bekhtereva.
(ACOUSTIC NERVE--TUMORS)

TERPUGOV, Ye.A.

Clinical aspects and surgical therapy of localized osteodystrophia fibrosa of the spine. Vop.neirokhir. 22 no.5:53-54 S-Q'158. (MIRA 12:1)

1. Klinika nervnykh bolezney Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(SPINE, dis.

isolated osteodystrophia fibrosa (Rus))

(OSTEITIS FIBROSA, case reports,

isolated spinal osteodystrophia fibrosa (Rus))

HAZDOL'SKIY, I.Ya.; SAL'MAN, A.Ya.; TERPUGOV, Ye.A.

Cysticercosis of the spinal cord. Zhur. nevr. i psikh 58 no.12:1424-1430
'58. (MIRA 12:1)

1. Nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni
V. M. Bekhtereva (dir. - prof. V.N. Myasishchev), Leningrad.
(SPINAL CORD, dis.
cysticercosis (Rus))
(CYSTICERCOSIS, case reports,
spinal cord (Rus))

TERPUKOV, Ye.A.

Changes in cerebrospinal fluid pressure in brain diseases. Sbor.
trud. Len. nauchn. ob-va nevr. i psikh. no.6:72-82 '59. (MIRA 13:12)

1. Iz Psikhonevrologicheskogo instituta imeni V.M. Bekhtereva
(direktor - chlen-korrespondent Akademii pedagogicheskikh nauk
RSFSR prof. V.N. Myasishchev).
(CEREBROSPINAL FLUID) (BRAIN—DISEASES)

ABRAMOVICH, G.B.; ADAMOVICH, V.A.; VOROB'YEV, S.P.; GOSHEV, A.I.; DEMIDENKO,
T.D.; ZAYCHIKOVA, N.A. [deceased]; RUBINOVA, R.S.; TERPUGOV, Ye.A.;
SHATALOVA, A.A.; YAKOVLEVA-SERNIRMAN, I.V.

Some investigations of the clinical aspects, pathogenesis, and
treatment of epilepsy. Trudy Gos. nauch.-issl. psikhonevr. inst.
no.20:343-354 '59. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy psikhonevrologicheskiy
institut imeni V.M. Bekhtereva, Leningrad.
(EPILEPSY)

MASHANSKIY, F.I.; RAZDOL'SKIY, I.Ya.; KOROTKEVICH, M.S.; TERPUGOV, Ye.A.

Modern diagnosis and treatment of brain tumors. Trudy Gos. nauch.-
issl. psikhonevr. inst. no.20:367-375 '59. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy psikhonevrologicheskiy
institut imeni V.M. Bekhtereva.
(BRAIN--TUMORS)

RAZDOL'SKIY, I.Ya., prof.; SAL'MAN, A.Ya.; TERPUGOV, Ye.A.

Parasagittal arachnoid endotheliomas (meningiomas). Vest. AMN SSSR
14 no.9:16-27 '59. (MIRA 13:1)

1. Nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni
V.M. Bekhtereva. 2. Chlen-korrespondent AMN SSSR (for Razdol'skiy).
(MENINGIOMAS)

TERPUGOV, Ye.A.

Errors in the diagnosis of neurinomas of the acoustic nerve. Vop.
psikh.i nevr. no.7:331-340 '61. (MIRA15:8)

1. Iz Psikhonevrologicheskogo instituta imeni V.M.Bel'tereva (dir.
chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR prof.
V.N.Myasishchev).

(ACOUSTIC NERVE--TUMORS)

TERPUGOV, Ye.A.

Neurinoma of the acoustic nerve and neurofibromatosis. Vop.
psikh. i nevr. no.9:285-291 '62. (MIRA 17:1)

1. Psikhonevrologicheskiy institut imeni V.M. Bekhtereva
(dir. B.A. Lebedev).

ABRAMOVICH, G.B.; TERPUGOV, Ye.A.

Craniopharyngioma with an unusual psychotic picture which disappeared after an operation. Vop. psikh. i nevr. no.9: 309-317 '62.
(MIRA 17:1)

1. Leningradskiy nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni V.M. Bekhtereva (dir. - B.A. Lebedev).

TERPUGOV, Ye.A.

Changes in the cranial bones in neurinomas of the acoustic nerve.

Trudy Gos. nauch.-issl. psikhonevr. inst. 31:145-151 '63.

(MIRA 17.6)

GAL'PERIN, M.D.; TERPUGOV, Ye.A.

Diagnosis and treatment of lesions of an intervertebral disk.

Trudy Gos. nauch.-issl. psikhonevr. inst. 31:331-354 '63.

(MIRA 17:6)

TERPUGOV, Ye.A.

"Angiography in the diagnosis of tumors and vascular diseases
of the brain" by M.D. Gal'perin. Zhur. nevr. i psikh. 63
no.2:308-309 '63 (MIRA 16:11)

"Tumors of the pineal gland," by A.P. Burlitskii. Ibid.:
309-310

*

TERPUGOV, Ye. N.

TERPUGOV, Ye. N. -- "Problems of Regulating the Operation of Point Electromagnetic Welders." Min Higher Education USSR. Moscow Order of Labor Red Banner Higher Technical School imeni Bauman. Moscow, 1955.
(Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No 1, 1956

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755420011-5

APPROVED FOR RELEASE: 07/16/2001

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"APPROVED FOR RELEASE: 07/16/2001

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APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755420011-5"

TERPUGOV, Ye.N., kand. tekhn. nauk

Classification of and search for literature on welding.

Svar. proizv. no.9:40-42 S '64.

(MCRA 17:12)

DANILOVA, V.I.; TERPUGOVA, A.F.

Metallic model used for study of the nitroaniline molecules.
Izv. vys. ucheb. zav.; Fiz. no.1:171-172 '58. (MIRA 11:6)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosuniversitete
imeni V.V. Kuybysheva.
(Aniline--Spectra)

5(3), 24(7) SOV/139-59-1-32/34
AUTHORS: Terpugova A.F., Grigor'yeva G.N. and Ignatova N.N.
TITLE: Calculation of Certain Mono-Substituted Benzenes Using
the "Metallic" Model (Raschet nekotorykh monozameshch-
ennykh benzola metodom "metallicheskoy" modeli)
PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika,
1959, Nr 1, pp 170-171 (USSR)
ABSTRACT: The paper reports the use of the "metallic" model to
calculate certain properties of mono-derivatives of
benzene ($C_6H_5NH_2$, C_6H_5Cl , C_6H_5F , C_6H_5Br) and of C_5H_5N .
The four derivatives of benzene are similar in their
electrical and chemical properties and they have
absorption bands in the region 3800 - 2300 Å. The
following assumptions were made in these calculations:
(A) each molecule can be represented by means of a one-
dimensional potential well with infinitely high walls
and length equal to the length of the molecule;
(B) two π -electrons of the substituent and one
 π -electron from each carbon atom form one bond and in
pyridine the benzoid electron structure is conserved;
(C) the effect of the electro-negative substituents is
allowed for by introducing a further well (V) at the

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SOV/139-59-1-32/34

Calculation of Certain Mono-Substituted Benzenes Using the
"Metallic" Model

bottom of the main well. The authors calculated the wavelengths of the low-frequency absorption bands on the five molecules. These calculated values are given in col. 2 of Table 1 and they agree satisfactorily with the experimental values given in col. 3. Table 2 lists the energy levels of benzene, aniline and pyridine. The data of Table 2 suggest that on the introduction of the substituent atom into the benzene ring in place of the C-H group (pyridine), the benzene levels are split. When the substituent atom replaces a hydrogen atom (aniline), new levels appear which are not due to the benzene ring. The first and second bands in the aniline spectrum and in the other three monoderivatives of benzene are due to transitions from a level due to the substituent onto split levels of the benzene ring. The calculated and empirical values of the dipole moment and the oscillator strength of aniline were found to be in satisfactory agreement. For aniline and pyridine the authors obtained also curves which were proportional to their electron densities. It was found that these

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SOV/139-59-1-32/34
Calculation of Certain Mono-Substituted Benzenes Using the
"Metallic" Model

curves confirmed the chemical data on the orienting
effect of substituents of Type I. Acknowledgements
are made to V.I. Danilova and N.A. Prilezhayeva.

NOTE: This is an abridged translation.
There are 2 tables and 10 references, of which 6 are
Soviet and 4 English.

ASSOCIATION: Sibirskiy Fiziko-tekhnicheskiy Institut pri Tomskom
Gosuniversitete imeni V.V. Kuybysheva (Siberian
Card 3/3 Physico-Technical Institute at Tomsk State University
imeni V.V. Kuybyshev)

SUBMITTED: June 13, 1958

SOV/51-7-4-31/32

AUTHORS: Kudryavtseva, N.V. and Terpugova, A.F.

TITLE: On the Paper by L.I. Borovinskiy

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 4, pp 578-579 (USSR)

ABSTRACT: L.I. Borovinskiy, in his paper "On the Conditions of Joining Functions in the One-Dimensional Metallic Model of a Molecule", published in "Optika i spektroskopiya", Vol 4, p 526 (1958), doubts the logical consistency of the metallic-model method in the case of a molecule represented by a ring of radius R with a branch of length l . Borovinskiy shows that in two limiting cases when $l \rightarrow 0$ and $R \rightarrow 0$ (or $l \rightarrow \infty$) the solutions do not go over into a free ring without a branch ($l \rightarrow 0$) or a potential well with two infinite walls ($R \rightarrow 0$ or $l \rightarrow \infty$). The present authors (Kudryavtseva and Terpugova) agree that Borovinskiy's mathematical conclusions are correct but they point out that the results obtained are due to the special conditions at the end of the branch (there is an infinite wall there). When $l \rightarrow 0$, the model reduces to a ring with a special point on it and when $R \rightarrow 0$ ($l \rightarrow \infty$), a potential well with one infinite wall is obtained.

SUBMITTED: February 18, 1959

Card 1/1

TERPUGOVA, A. F.

Cand Phys-Math Sci, Diss -- "Determination of certain characteristics of benzine substitution molecules". Tomsk, 1961. 11 pp with graphics, 21 cm (Tomsk State U imeni V. V. Kuybyshev), 150 copies, Not for sale, bibl on pp 10-11 (KL, No 9, 1961, p 176, No 24266). /61-53021/

S/139/61/000/001/018/018
E030/E435

AUTHORS: Terpugova, A.F. and Zubkova, L.B.

TITLE: Calculation and Interpretation of Absorption Lines in
Side-Chain Benzene Derivatives

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1961, No.1, pp.172-174

TEXT: Using the approximation of a metallic free-electron system, the absorption lines in several side-chain benzene derivatives have been interpreted and the energy levels roughly calculated to agree with experiment. Hence, an electron density function is plotted. Molecules studied and compared were benzene, aniline, nitrobenzene, and the ortho, meta and para forms of nitroaniline. It was assumed that the π -electrons of the benzene nucleus and the p-electrons of the side-chains were in a potential well with infinite sides. A distinction was made between molecules of type I, where the well had an extension of length equal to the difference in ionization potentials of carbon and the side-chain atom and molecules of type II which had no such extension. Firstly, energy levels were qualitatively interpreted as in Fig.1, where comparison with benzene showed new levels, e_4 for aniline

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Calculation and Interpretation ...

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(associated with the C-N bond) and e_4 and e_7 in nitrobenzene (for the C-N and N...O bonds). For the various forms of nitroaniline, the levels of e_4 and e_7 were split in two, because of the presence of the two side-chains. Energy of transitions between the various levels in the nitroanilino were calculated to be

		<u>Theoretically</u>	<u>Actually</u>
Para	5-6	Forbidden	Forbidden
	7-8	Forbidden	Forbidden
	6-8	3100 Å	3200-3800 Å
Meta	5-6	4200 Å	3400-4000 Å
	6-8	4180 Å	2600-2800 Å
Ortho	5-6	4600 Å	3800-4400 Å
	6-8	4210 Å	2800-3000 Å

The proximity of the CN and NO bonds in the ortho and meta forms allows transitions at ambient temperatures which would otherwise be forbidden as the levels were filled apart from thermal

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Calculation and Interpretation ... 5/139/61/000/001/018/018
E030/E435

excitations. It is also possible to construct the electron density functions and these are shown in Fig.2. There are 2 figures, 1 table and 3 references: 1 Soviet and 2 non-Soviet.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut Tomskom gosuniversitete imeni V.V.Kuybysheva
(Siberian Physicotechnical Institute of Tomsk State University imeni V.V.Kuybyshev)

SUBMITTED: April 23, 1960

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Card 3/4

Calculation and Interpretation ...

S/139/61/000/001/018/018
EO30/E435

Fig.1 Energy levels of benzene, aniline, nitro-benzene, and para, meta and ortho-nitro-aniline.

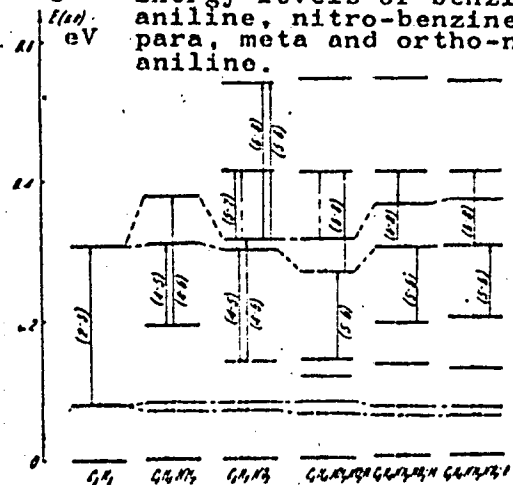


Fig.1.

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Electron density distribution in molecules of aniline, nitro-benzene and para-nitroaniline.

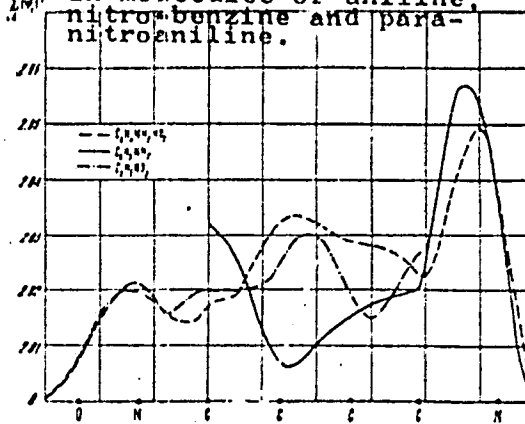


Fig.2.

ZUBKOVA, L.B.; TERPUGOVA, A.F.; DANILOVA, V.I.

Use of the free-electron method in calculating the intramolecular interaction of nitro and amino groups in o-nitroaniline. Izv.vys. ucheb.zav.;fiz.no.2:85-91 '63.

(MIRA 16,5)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

(Molecules)

(Aniline)

(Quantum theory)

FILIPPOVA, L.G.; TERPUGOVA, A.F.

Calculation of complexes of some aromatic compounds by the free-electron method. Part 1. Calculation of the aniline-nitrobenzene complex. Izv.vys.ucheb.zav.;fiz.no.2:92-98 '63.

(MIRA 16:5)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

(Aromatic compounds)

(Quantum theory)

FILIPPOVA, L.G.; TERPUGOVA, A.F.

Calculation of complexes of some aromatic compounds by the free-electron method. Part 2. Calculation of the system phenol - nitrobenzene. Izv.vys.ucheb.zav.;fiz.no.2:105-110 '63.

(MIRA 1645)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosudarstvennoy universitete imeni.

(Aromatic compounds)

(Quantum theory)

ACCESSION NR: AP4025101

S/0139/63/000/006/0178/0179

AUTHORS: Zubkova, L. B.; Terpugova, A. F.

TITLE: Computation of the triplet levels for several benzene derivatives

SOURCE: IVUZ. Fizika, no. 6, 1963, 178-179

TOPIC TAGS: triplet level, benzene derivative, benzene, phenol, aniline, nitrobenzene, o-nitroaniline, phosphorescence spectrum

ABSTRACT: Preliminary results are given for an investigation of the location of triplet levels for several benzene derivatives. Experimental and theoretical values of wave length of the phosphorescence spectrum, which is a result of the transition from the triplet levels to the singlet, are tabulated for benzene, phenol, aniline, nitrobenzene, and o-nitroaniline. It is found that as the difference in ionization potential of carbon and the substitute increases, the wave length decreases linearly. Orig. art. has: 1 equation, 1 diagram, and 1 table.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosuniversitete

Card 1/2

ACCESSION NR: AP4025101

imeni V. V. Kuyby*sheva (Siberian Institute of Physics and Technology Tomsk State University)

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AUTHOR: Danilova, Y. I.; Zubkova, L. B.; Morozova, Yu. P.; Prismareva, O. A.; Prilezhayeva, N. A.; Terpugova, A. F.; Filippova, L. G. Foronova, R. M.

TITLE: Influence of intra- and intermolecular interaction on the energy levels, electron spectrum, and color properties of complex molecules

41
B

SOURCE: Ref. zh. Fizika, Abs. 11D91

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 327-335

TOPIC TAGS: molecular interaction, complex molecule, electron energy level, electron spectrum, conjugate bond system, hydrogen bonding

ABSTRACT: The intramolecular interaction (effect of conjugation, external-field interaction between donor-acceptor groups, hydrogen bond, etc.) were investigated for molecules of di- and polysubstitutes of benzene (for 20 compounds). An interpretation of the observed phenomena is presented. Similar investigations were made for the intermolecular interaction in different solvents (for 20 systems) and for complex formation processes (10 systems). General laws of the influence of the indicated processes on the electron levels are formulated and the changes of the spectra are interpreted. [Translation of abstract]

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Card 1/1

MOROZOVA, Yu.P.; DANILOVA, V.I.; TERPUGOVA, A.F.

Long-wave absorption bands in polysubstituted aromatic nitro compounds. Izv. vys. ucheb. zav.; fiz. no.1:164-167 '64.
(MIRA 17:3)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

DANILOVA, V.I.; TERPUGOVA, A.F.

Interpretation of absorption bands in substituted benzenes.
Izv. vys. ucheb. zav.; fiz. no. 3:62-71 '64. (MIRA 17:9)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom
gosudarstvennom universitete imeni Kuybysheva.